DOOSAN Document Transmittal Upper Trishuli-1 HEP (216MW)	Date 2022-03-06	DT No.: UT1-HEP-DHI-PC-D-0010	SHEET 1 OF 1
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SUBJECT	Review Note RN-0076_Layout of Access Tunnel to Powerhouse		

S. N.	REVIEW NOTE NO.	REVIEW STATUS	DWG. / DOC. NO.	REV.	DWG. TITLE / DOC. DESCRIPTION	REMARK
1	RN-0076	FI	UT1-C-090-CVL-DG-64001	0A	Layout of Access Tunnel to Powerhouse	3 SHEET
2						
3						
4						
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12						

Received by :

Date :

Legend of Review Status
A : APPROVED
AN : APPROVED AS NOTED
RR : RETURN FOR RESUBMISSION
FI : FOR INFORMATION

DHI STAMP

Doosan Heavy Industries & Construction Co. Ltd. DOOSAN Branch Office Nepal

Issued by DHI

Youngsoo Son

Project Manager

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Doosan Heavy Industries & Construction Co., Ltd.

Discipline : Civil

UPPER TRISHULI-1 HEP (216MW)

Client	**Nepal Water and Energy Development Company Private Limited**
Owner's Engineer	**Tractebel Engineering GmbH / Jade Consult**

REVIEW NOTE

Contractor	**Doosan Heavy Industries & Construction Co., Ltd.**		
Title of the Document	Layout of access tunnel to Powerhouse, sheets 1-2		
Document No.	UT1-C-090-CVL-DG-64001	Revision	0A
Date of Documents	28.07.2021	Received Date	19.08.2021
Transmittal Form No.	UT1-HEP-DHI-D-0034		
Previous Review Date/Status	N/A	Prev. Review Note No.	N/A
Review Note No.	**RN-0076**	**Present Review Date**	**06.03.2022**
		Present Review Status	**FI**

A: Approved AN: Approved as Noted RR: Returned for Resubmission FI: For Information, only.

General comments:

- The document under this review is part of the Design Optimization Proposal Procedure. Only comments in technical aspects are given.
- As it is stated in Note n° 3 "The layout of main access tunnel is subject to final arrangement of powerhouse and transformer cavern", the document under revision us considered as "For Information".
- The submitted document under this review is considered incomplete. It only comprises arrangement drawings of the Main Access Tunnel to the Powerhouse and Transformer Cavern without any report regarding design assumptions or explanations attached or listed in the reference drawings/ documents.

Further OE´s comments are indicated in red in the Annex.

ANNEX:

UT1-C-090-CVL-DG-64001_0A sheets 1 to 2, comments

DISCLAIME

Any approval will not release the Contractor from any of his obligations under the Contract.

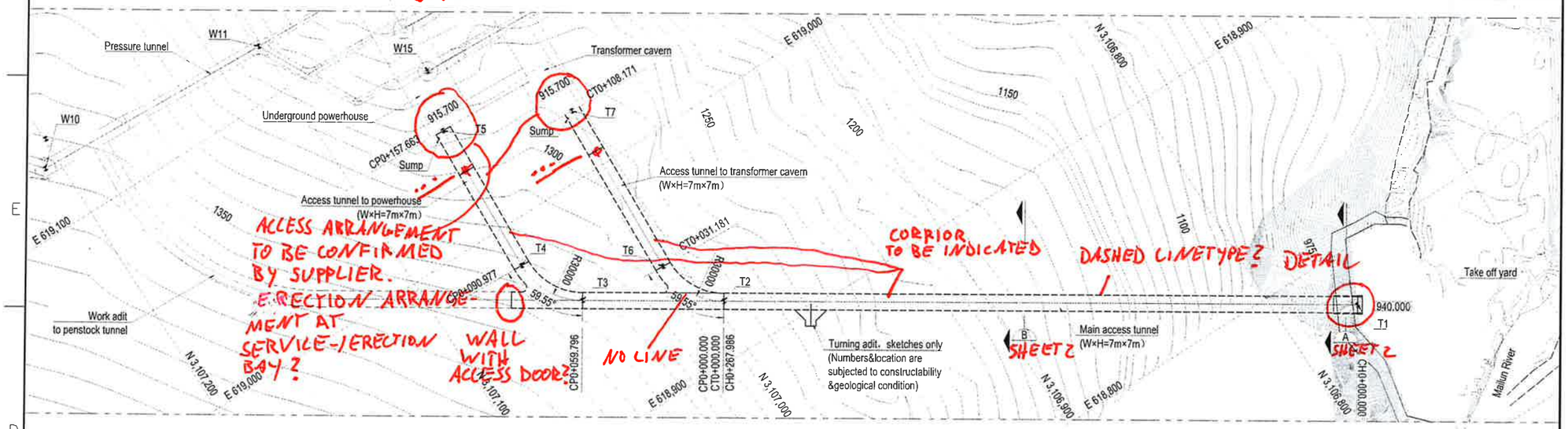
Sebastian Beck, Chief Design Engineer

MAIN ACCESS TUNNEL

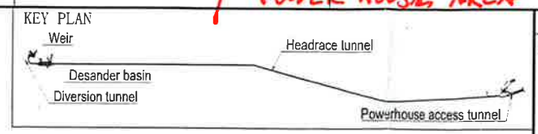
PLAN SCALE

PLAN LAYOUT OF ACCESS TUNNEL

Scale 1:1000



KEY PLAN



KEY PLAN MAYBE ONLY POWER HOUSE AREA

ALREADY IN TITLE BLOCK

NOTE

1. This set of drawings are layout of access tunnel to powerhouse.
2. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.
3. The layout of main access tunnel is subject to final arrangement of powerhouse and transformer cavern.

=> DOCUMENT IS CONSIDERED FOR INFORMATION

LEGEND:

- Gn — Gneiss
- Mi+Qu. Sch — Interbedded mica schist and quartz-schist
- MW / SW — Inferred boundry between moderately weathered and slight weathered
- Inferred lithology boundry
- Joint number and attitude (Dip direction/DIP)
- Fault number and attitude (Dip direction/DIP)
- Inferred ground water level
- Section of concrete

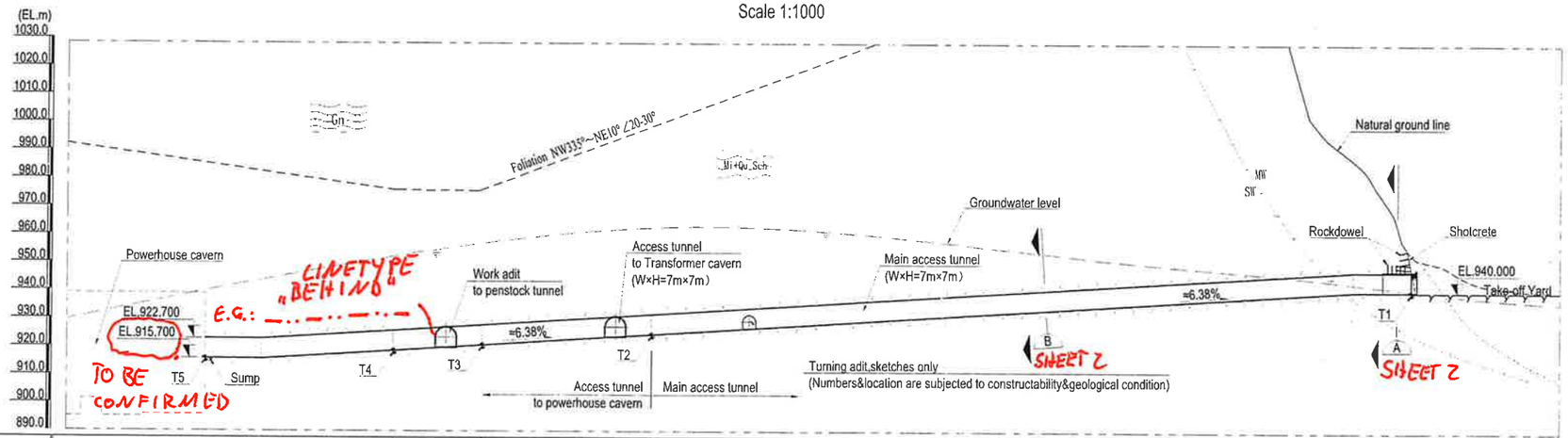
Scale: 1:1000 0 10 20 30 40 50m

MAIN ACCESS TUNNEL TO POWER HOUSE CAVERN LONGITUDINAL PROFILE

SCALE

LONGITUDINAL PROFILE OF ACCESS TUNNEL (TO POWERHOUSE CAVERN)

Scale 1:1000

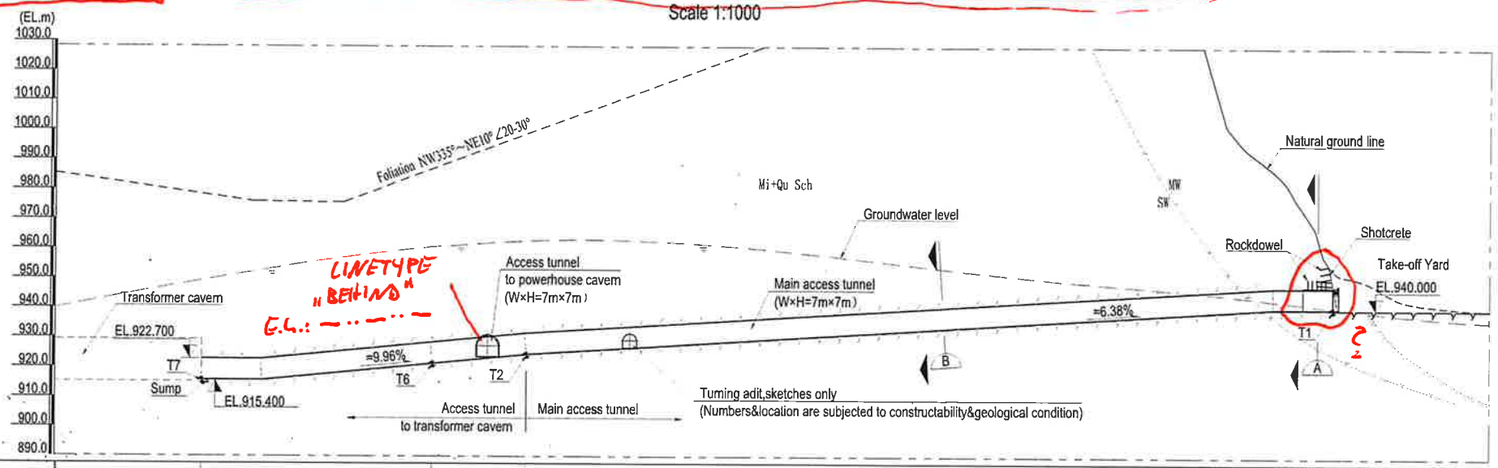


| | | |

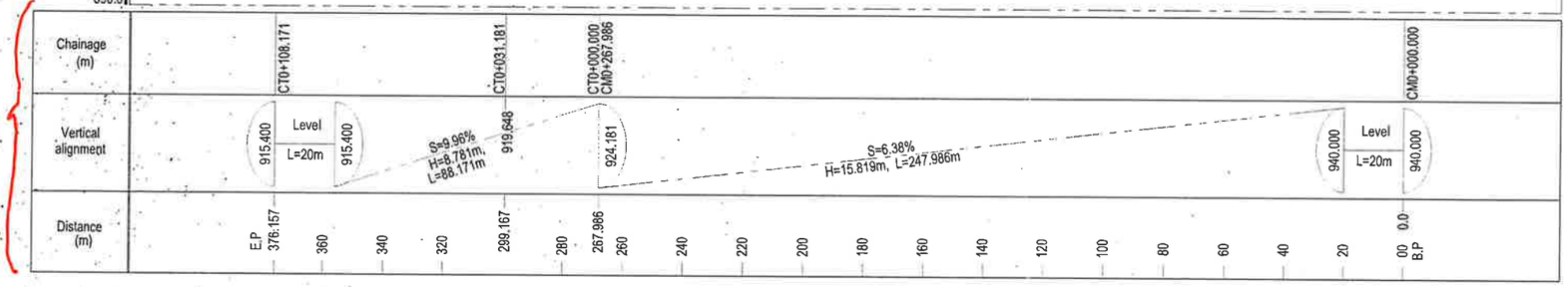
RV-0076, ANNEX 2/2
Edit.: B/E 06/03/2022

LONGITUDINAL PROFILE OF ACCESS TUNNEL (TO TRANSFORMER CAVERN)

Scale 1:1000



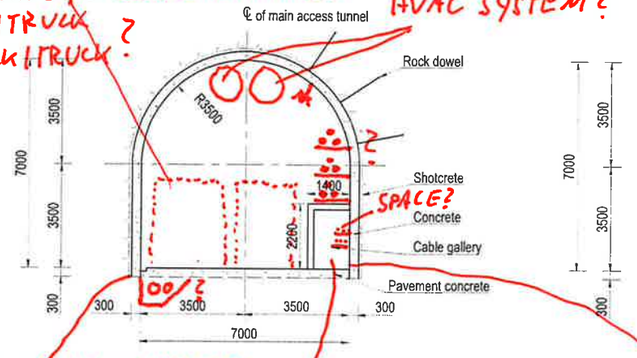
SEE AS EXAMPLE SUBMITTED PROTOTYPE DG.



SECTION A-A
1:100

CLEARANCE PROFILE OF DECISIVE VEHICLE (1-LANE / 2-LANE TRAFFIC?)
- CAR/TRUCK
- TRUCK/TRUCK ?

PERMANENT HVAC SYSTEM?

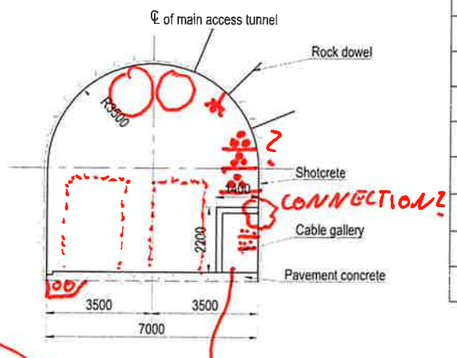


OTHER SUPPLY CHANNELS?
- WATER / WASTE WATER
- LOW VOLTAGE / MEDIUM V.
- COMMUNICATION / SIGNALIZATION
- ...

EMERGENCY ESCAPE CORRIDOR? ↳ NOT IN COMBINATION WITH HIGH VOLTAGE CABLES

SECTION B-B
1:100

SEE COMMENTS SECTION A-A



CORRIDOR TO BE INDICATED IN PLAN / LONG. PROFILES

COORDINATES OF CONTROL POINT

Point No.	Coordinates			Remark
	E(m)	N(m)	Z(m)	
W10	619126.258	3107206.255		Centerline of vertical pressure shaft
W15	619073.656	3107046.395	906.000	CeterPoint of unit 1#
T1	618776.979	3106769.121	940.300	Portal of access tunnel
T2	618922.986	3106993.840	924.181	Plane turning point of access tunnel to transformer cavern
T3	618955.565	3107043.982	920.366	Plane turning point of access tunnel to powerhouse cavern
T4	618982.064	3107057.607	918.377	Plane turning point of access tunnel to powerhouse cavern
T5	619048.683	3107054.624	915.700	Intersection of access tunnel and Powerhouse cavern
T6	618949.185	3107007.465	919.648	Plane turning point of access tunnel to transformer cavern
T7	619026.398	3107004.021	915.700	Intersection of access tunnel and transformer cavern

NOTE

1. ~~This set of drawings are layout of access tunnel to powerhouse.~~
2. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.

SEE ALSO COMMENTS SHEET 1

Scale:
1:1000 0 10 20 30 40 50m
1:100 0 1 2 3 4 5m

REFERENCE DRAWINGS

	EE POWERHOUSE PORTAL

SYMBOL AND LEGEND

INFORMATION

FOR REVIEW

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REV. NO.	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.
A	28.JUL., 2021	FOR REVIEW	ZHANG J.Q.	WANG H.Q.	LI W.G. LIU Y.Z.

PROJECT TITLE
Upper Trishuli-1 HEP (216MW)

OWNER
NWEDC

OWNER'S ENGINEER
TRACTEBEL ENGINEER
jade CONSULT

CONTRACTOR
DOOSAN Doosan Heavy Industries & Construction

DRAWING TITLE
LAYOUT OF ACCESS TUNNEL TO POWERHOUSE (2/2)

PJT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
(6)	UT1-C-090-CVL-DG-64001-02	2 OF 2	0A

A1 (594 x 841 MM)